## ABSTRACT OF THE DISCLOSURE

A method of forming a valve assembly for delivering a fluid from a fluid bag to an animal caging system for housing an animal can include forming, in an injection molding machine, an upper member having a piercing member and a connecting member. The upper member has a fluid channel defined therethrough; and forms, in an injection molding machine, a base having a flange member and a base fluid channel defined therethrough. The base is designed to be matingly coupled to the upper member. The method can further include forming, in an injection molding machine, a stem member designed and dimensioned to be disposed in part within the base fluid channel. The stem member has an actuation portion extending through a spring element. The stem member has a top portion having a lower surface.